

WHAT IS CLAIMED IS:

1. A method of inhibiting human immunodeficiency virus (HIV) ribonucleotide reductase (Rr) in a subject infected with HIV comprising administering to said subject an amount of a gallium composition effective to inhibit Rr.
- 5 2. The method of claim 1, wherein HIV is HIV-1.
3. The method of claim 1, wherein HIV is HIV-2.
4. The method of claim 1, wherein HIV has infected a T-cell.
5. The method of claim 1, wherein said gallium composition is gallium nitrate.
- 10 6. The method of claim 1, wherein said gallium composition is a gallium-hydroxypyrrone complex.
7. A method of inhibiting human immunodeficiency virus (HIV) replication in a subject infected with HIV comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.
8. The method of claim 7, wherein HIV is HIV-1.
- 15 9. The method of claim 7, wherein HIV is HIV-2.
10. The method of claim 1, wherein HIV has infected a T-cell.
11. A method of treating a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.
- 20 12. The method of claim 11, wherein HIV is HIV-1.
13. The method of claim 11, wherein HIV is HIV-2.
14. The method of claim 11, wherein said gallium composition is gallium nitrate.

15. The method of claim 11, wherein said gallium composition is a gallium-hydroxypyronate complex.
16. The method of claim 11, wherein said effective amount achieves *in vivo* concentrations of about 1 to about 30 μM .
- 5 17. The method of claim 16, wherein said effective amount is about 3 to about 20 μM .
18. The method of claim 11, wherein said effective amount is about 750 mg/m^2 given every two to three weeks.
- 10 19. The method of claim 11, wherein said effective amount is about 100 to about 300 mg/m^2 per day.
20. The method of claim 11, wherein said effective amount is given in a unit dose of about 200 mg to about 1000 mg.
- 15 21. The method of claim 11, wherein said gallium composition is administered orally.
22. The method of claim 21, wherein said gallium composition is in the form of a tablet.
- 15 23. The method of claim 21, wherein said gallium composition is in the form of a capsule.
24. The method of claim 11, wherein said gallium composition is administered intravenously.
- 20 25. The method of claim 11, wherein said gallium composition is sufficient to provide a blood plasma gallium concentration of 0.1 to 5.0 $\mu\text{g}/\text{ml}$.
26. The method of claim 11, further comprising treating said subject with a second anti-viral agent.

27. The method of 26, wherein said second anti-viral agent is a nucleoside reverse transcriptase inhibitor (NRTI).
28. The method of claim 26, wherein said NRTI is didexoyinosine.
29. The method of claim 26, wherein said NRTI is dideoxycytidine.
- 5 30. The method of claim 26, wherein said NRTI is 5-azidothymidine.
31. A method of reducing virus shed from a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.
- 10 32. A method of reducing virus burden in a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.
33. A method of inhibiting loss of T cells in a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.
- 15 34. The method of claim 33, wherein the number of T cells in said subject increases following treatment with said gallium composition.
35. A method of inhibiting development of acquired immunodeficiency syndrome in a human subject infected with human immunodeficiency virus (HIV) comprising administering to said subject an amount of a gallium composition effective to inhibit HIV replication.
- 20 36. A therapeutic composition comprising:
- (a) a gallium composition; and
- (b) a nucleoside inhibitor.
- 25 37. The composition of claim 36, wherein said gallium composition is gallium nitrate.

38. The composition of claim 36, wherein said gallium composition is a gallium-hydroxypyrrone complex.

39. The composition of claim 36, wherein the nucleoside inhibitor is one or more of
5 the compounds selected from the group of dideoxyinosine, dideoxycytidine and 5-azidothymidine.

40. A kit comprising, in suitable container means:

- (a) a gallium composition; and
- (b) a nucleoside reverse transcriptase inhibitor.

10

25073577 1